

Claims

What is claimed is:

- 1 1. A method, comprising:
 - 2 coupling a plurality of receivers to a first frequency reference to
 - 3 communicate with a first station over a corresponding plurality of signal paths;
 - 4 and
 - 5 selectively coupling one of the plurality of receivers to a second frequency
 - 6 reference to communicate with a second station over a signal path not included
 - 7 in the plurality of signal paths.
- 1 2. The method of claim 1, further comprising:
 - 2 determining whether a quality of service provided by the second station is
 - 3 greater than a quality of service provided by the first station.
- 1 3. The method of claim 1, wherein the quality of service provided by the first
2 station includes at least one of a network type, a network capability, a
3 network activity level, a signal strength, a bandwidth, a signal-to-noise ratio,
4 a signal-to-interference ratio, a multipath condition, a service provider, a
5 monetary cost, user-preferred information, and a user-preferred service.
- 1 4. The method of claim 1, further comprising:
 - 2 adjusting the first frequency reference to provide a reference frequency
 - 3 substantially equal to a reference frequency provided by the second frequency
 - 4 reference.
- 1 5. The method of claim 1, further comprising:
 - 2 handing off communications between the first station and the plurality of
 - 3 receivers from the first station to the second station after determining that a

4 quality of service provided by the second station is greater than a quality of
5 service provided by the first station.

1 6. The method of claim 1, further comprising:
2 selectively coupling another one of the plurality of receivers to a third
3 frequency reference to communicate with a third station over another signal path
4 not included in the plurality of signal paths.

1 7. The method of claim 1, further comprising:
2 adjusting the second frequency reference to provide a new reference
3 frequency; and
4 communicating with a new station using a new signal path not included in
5 the plurality of signal paths.

1 8. An article comprising a machine-accessible medium having associated data,
2 wherein the data, when accessed, results in a machine performing:
3 coupling a plurality of receivers to a first frequency reference to
4 communicate with a first station over a corresponding plurality of signal paths;
5 and
6 selectively coupling one of the plurality of receivers to a second frequency
7 reference to communicate with a second station over a signal path not included
8 in the plurality of signal paths.

1 9. The article of claim 8, wherein the plurality of receivers are configured to
2 operate as a multiple-input, multiple-output system, and wherein selectively
3 coupling one of the plurality of receivers to the second frequency reference
4 further comprises:
5 decoupling the one of the plurality of receivers from operating as a part of
6 the multiple-input, multiple-output system; and

7 coupling the one of the plurality of receivers to operate as a receiver
8 independent from the multiple-input, multiple-output system.

1 10. The article of claim 8, wherein the data, when accessed, results in the
2 machine performing:

3 selecting a second reference frequency to be provided by the second
4 frequency reference based on one of an arbitrary scan process, a list of
5 frequencies, and a location of the plurality of receivers.

1 11. The article of claim 8, wherein a first reference frequency to be provided by
2 the first frequency reference is selected in accordance with a channel designated
3 by one of an Institute of Electrical and Electronics Engineers (IEEE) 802.11
4 standard or an IEEE 802.16 standard.

1 12. The article of claim 8, wherein a selected one of the plurality of receivers is
2 included in a transceiver.

1 13. An apparatus, comprising:

2 a plurality of receivers to couple to a first frequency reference and to
3 communicate with a first station using a plurality of signal paths, wherein at
4 least one of the plurality of receivers can be selectively coupled to the first
5 frequency reference or to a second frequency reference to communicate with a
6 second station using a signal path not included in the plurality of signal paths.

1 14. The apparatus of claim 13, wherein the plurality of signal paths comprise a
2 portion of a multiple-input, multiple-output communication system.

1 15. The apparatus of claim 13, wherein the first frequency reference comprises a
2 first frequency synthesizer, and wherein the second frequency reference
3 comprises a second frequency synthesizer.

- 1 16. The apparatus of claim 13, further comprising:
 - 2 a determination module to determine whether a quality of service provided
 - 3 by the second station is greater than a quality of service provided by the first
 - 4 station.
- 1 17. The apparatus of claim 13, wherein the quality of service provided by the first station includes at least one of a network type, a network capability, a network activity level, a signal strength, a bandwidth, a signal-to-noise ratio, a signal-to-interference ratio, a multipath condition, a service provider, a monetary cost, user-preferred information, and a user-preferred service.
- 1 18. The apparatus of claim 13, further comprising:
 - 2 a third frequency reference, wherein at least another one of the plurality of receivers can be selectively coupled to the first frequency reference or the third frequency reference to communicate with a third station using another signal path not included in the plurality of signal paths.
- 1 19. The apparatus of claim 13, wherein the plurality of signal paths comprise a portion of a multiple-input, multiple-output communication system, and wherein the signal path is a search signal path, further comprising:
 - 2 a third frequency reference, wherein at least another one of the plurality of receivers can be selectively coupled to the first frequency reference or the third frequency reference to communicate with a third station using a second search signal path not included in the plurality of signal paths.
- 1 20. A system, comprising:
 - 2 a plurality of receivers to couple to a first frequency reference and to communicate with a first station using a plurality of signal paths, wherein at least one of the plurality of receivers can be selectively coupled to the first

5 frequency reference or to a second frequency reference to communicate with a
6 second station using a signal path not included in the plurality of signal paths;
7 a processor to couple to the plurality of receivers; and
8 a display to couple to the processor.

1 21. The system of claim 20, further comprising:
2 a transceiver including a selected one of the plurality of receivers.

1 22. The system of claim 20, further comprising:
2 a third frequency reference, wherein at least another one of the plurality of
3 receivers can be selectively coupled to the first frequency reference or to the
4 third frequency reference to communicate with a third station using another
5 signal path not included in the plurality of signal paths.

1 23. The system of claim 20, further comprising:
2 a one-to-one corresponding plurality of antennas to couple to the plurality of
3 receivers.